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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/890,206 | 12/31/2001 | Thierry Patureaux | Q65504 | 7563 |
| 7590 01/25/2005 | | | | |
| Sughrue Mion Zinn Macpeak & Seas Suite 800 2100 Pennsylvania Avenue NW Washington, DC 20037-3213 | | | EXAMINER JOHNSON, JONATHAN J | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1725 | |
| DATE MAILED: 01/25/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,206

Applicant(s)

PATUREAUX, THIERRY

Examiner

Jonathan Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2004.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) 1-3,5 and 10-13 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 4,6-9 and 14 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☒ Claim(s) 1-13 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hundtofte (3,608,751). Hundtofte teaches a device for facilitate the filling of a vertical tube having at least 3 obstacles (Figure 1, item 4); that are at least in part offset laterally in relation to the axis of the tube (Figure 1, item 4); where two of the obstacles are arranged in the tube at different levels (figure 1, item 4) and are symmetric in relation to the axis of the tube (Figure 1, item 4); and have rotational symmetry and that symmetry is offset in relation to cable (compare symmetry of Figure 1, top two items listed as item 2) where the obstacles have cylindrical shape (Figure 1, item 2). Although Hundtofte does not explicitly teach the dimension of the obstacles to be perpendicularly to the axis ranges between 0.25 and 0.75 times the diameter of the tube where the obstacles take up at least 80% of the lateral section of the tube, Hundtofte does teach ensuring that each particle is interrupted by a blade (col. 2, ll. 65-75). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the obstacles of Hundtofte to ensure the obstacles are perpendicular to the axis ranges between 0.25 and 0.75 times the diameter of the tube where the obstacles take up at least 80% of the lateral section of the tube in order to ensure the blade cushions each particle so that a low pressure drop

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is ensured (see Hundtofte col. 3, ll. 1-20). Put another way, Hundtofte teach size of the obstacle to be an art recognized result effective variable depending on the type of material to be used.

That is, it would have been obvious to one of ordinary skill in the art at the time of the invention to choose the instantly claimed ranges through process optimization, since it has been held that there the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See In re Boesch, 205 USPQ 215 (CCPA 1980).

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hundtofte (3,608,751) as applied to claim 4 above and further in view of Ryntveit et al. (EP 548999). Ryntveit et al. teach more than one cable is suspended vertically in the tube (figure 2, item 4 and figure 3, item 8). It would have obvious to one of ordinary skill in the art at the time of the invention was made to modify the cable of Hundtofte to utilize the cable system of Ryntveit et al. to ensure that the damper means are held within the tube (see Ryntveit et al. col. 3, ll. 15-40).

Response to Arguments

Applicant argues that Hundtofte does not teach the size of the obstacle to be an art recognized result effective variable. The examiner disagrees. A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). "In determining whether the invention as a whole would have been obvious under 35

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U.S.C. 103, we must first delineate the invention as a whole. In delineating the invention as a whole, we look not only to the subject matter which is literally recited in the claim in question... but also to those properties of the subject matter which are inherent in the subject matter and are disclosed in the specification.” In re Antonie, 559 F.2d 618, 620, 195 USPQ 6,8 (CCPA 1977).

In the instant case, while the examiner agrees that Hundtofte does not explicitly state that the blades and the cross-section of the tubes are a result effective variable, Hundtofte teaches that the blades must be sized to ensure that each particle strikes it and slows the particle’s downward decent (col. 2, ll. 65-67). It is the examiner’s position that this teaching clearly shows a relationship between the size of the blade and the cross-section of the tube. Without the relationship, one of ordinary skill would not ensure that the particles would strike the blades.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,


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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 571-272-1177. The examiner can normally be reached on M-Th 7AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jonathan Johnson
Examiner
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